Abstract of the Disclosure

A low power E-fuse repair methodology substantially removes system latency during memory and/or E-fuse farm module power-down in a device that employs E-fuse farm technology. The method maintains power to the repair registers and minimal control logic in the memories, while all other circuitry can be either placed in a low power data retention mode, or completely powered off. There is no need to rescan the repair data from the E-fuse farm after one or more memories are powered back up. This provides dynamic power savings since there is no longer any need to idle the system to reload repair data. Since the E-fuse farm can be powered down after initial system power-up and repair data is loaded into the memories, there is also a significant leakage power savings.